

the Research and Development Branch of the Quartermaster Corps, is light enough to handle and transport easily. The complete unit, including engine and tool box, weighs less than 1,500 pounds. The clothing of approximately 75 men can be fumigated each hour in one of these chambers.

The gas used in fumigating, methyl bromide, is a highly volatile, penetrating substance whose molecules are so fine that they can find their way through solid wood. The glue used in making plywood, however, stops them from seeping out the sides, and the joints and corners of the chamber are leak-proof.

A three-pound can of methyl bromide is placed in a cylinder attached to the exhaust of the motor and punctured by a pin. With the pressure released, and heated by the exhaust, the liquid becomes gas which is fanned into the chamber. It quickly and thoroughly penetrates the clothing or bedding packed in the chamber, instantly killing lice and other insects.

Less than 40 minutes need be allowed to fumigate all articles within the chamber and exhaust the gas so that the chamber is ready to be reloaded.

The used gas is carried off into the air over the chamber. Although a deadly poison, it dissipates quickly and becomes harmless in the open.

A peace-time use for the chamber by furriers and laundries is predicted. The gas acts rapidly, has great penetrating powers and leaves no deposit on fumigated garments.

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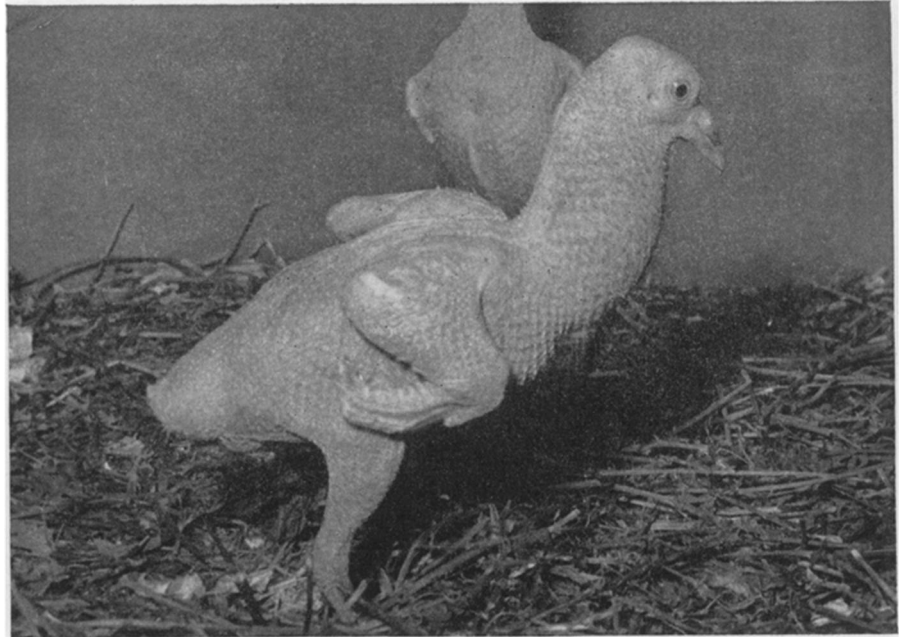
BACTERIOLOGY

Penicillin Checks Growth Of Plant Disease Germs

➤ PENICILLIN has been found to check the growth of a bacterial species responsible for a plant disease, the destructive rot that has killed off a number of groves of the picturesque giant cactus, or sahuaro, in the Southwest. This discovery, believed to be the first proven instance of penicillin's ability to knock out a plant-disease germ, was made in studies at the University of Arizona, by Prof. J. G. Brown and Miss Alice M. Boyle.

The drug was used on colonies of the bacterium technically known as *Erwinia carnegieana*, growing on culture media in laboratory glass vessels.

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NAKED, BUT UNASHAMED—In the spring, no livelier iris changes on this burnished dove—he hasn't any feathers to be burnished. But that doesn't prevent him from putting on a nudist version of regular pigeon courtship. He struts and coos, bows and spreads his wings, as if he had the most dazzling kind of plumage to display before the enchanted eyes of his mate.

GENETICS

Featherless Pigeons

➤ FEATHERLESS pigeons, naked as on the day of their hatching, strut and coo unembarrassed in cages in the genetics laboratories of the University of Wisconsin. These absurd but fascinating fowl are described by Prof. Leon J. Cole and Ray D. Owen, in the March 15 issue of the *Journal of Heredity*.

The featherless condition is hereditary, the two geneticists explain. It is rather difficult to keep the breed going, for a full suit of feathers plays an important part in normal mating, so that though the birds find their nakedness no embarrassment it is nevertheless a handicap. Artificial insemination has been used in propagation, but this laboratory technique is rather difficult. Add to this the facts that the birds are not naturally very fertile, and that they suffer easily from cold, and it becomes easily evident why no encouragement is offered to hopeful potential buyers of squabs that would not need plucking.

Actually, even if the breed became numerous enough to be marketed, it might still be a disappointment in this respect, for the birds do produce a

crop of what might be called permanent pin-feathers. Rudimentary or abortive feathers start to grow, and some of the stiff quill-feathers on the wings may become a half-inch or so in length. These are kept frayed off and worn down by the birds' ordinary activities.

The featherless pigeons seem to be unconscious of having nothing on, for they persist in action-patterns that go with feathers and in their absence simply make the birds appear absurd. Thus, when one of them is set down on the edge of a table it immediately takes off as if in flight, flapping its bare wings vigorously, and of course inevitably crashes.

Courtship activities, in which feathers normally play as important a part as fine clothes in the young of the human species, produce some especially absurd antics.

As the two Wisconsin scientists describe it: "They are also active and aggressive lovers. Inadequate attire produces no inferiority complex in them: they strut and coo, puff and bow as if arrayed in the finest of raiment."

Once, in pity of their nakedness, the geneticists tried to clothe the pigeons. They had little sweaters knitted for them. But the birds resented these so actively that they finally had to take

them off and leave them to their natural nudist ways. To keep them from being killed by cold, they simply see that their cages are always near a radiator.

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MEDICINE

Birth of Quints Rare

Scientists waiting for confirmation of report that Argentine mother has had quintuplets. If verified, will be first authentic case in South America.

➤ SCIENTISTS in the United States are waiting with interest for scientific confirmation of the report from Argentina of the birth of quintuplets there. Such reports of multiple births are fairly frequent, but the birth of quintuplets is very rare.

Some error would seem likely in the report circulated in the U. S. that the five babies weigh between 20 and 25 pounds each at the age of eight months. While this is a normal weight for a single baby at that age, the Dionne quintuplets did not average 20 pounds in weight until they were about 18 months and did not reach 25 until they were about two and a half years.

Medical records show that 60 such sets of five babies born at the same time have been widely reported, but of these only 47 are considered to be authentic, according to an authority on multiple births, Dr. H. H. Newman, of the University of Chicago.

No authentic case of quintuplet births has ever been reported from South America. England leads the world in the production of quintuplets with nine sets on record. The United States has had four sets, but in none did all five babies survive more than a few days. In fact in the most recent set, born in 1936 in Durham, N. C., only four babies were completely formed.

Our most recent hope of a quintuplet birth, at Miami, Fla., in 1940, turned

out to be only a misunderstanding of an eager mother-to-be. She actually had only one baby.

An exciting report of the birth of seven babies at one time came from Georgetown, British Guiana, in 1933. But when a scientist investigated he found it to be a "journalistic joke." He quoted a local newspaper as saying "our women are noted for their fecundity; parturitions of two, four, six, eight and even ten children at one time are not infrequent." The mother, in this case, was actually parent to seven children, but all were of different ages.

All reports of the simultaneous birth of six or more human infants have so far turned out to be legends. One such is commemorated by a monument in Hamelin, famous home also of the legend of the Pied Piper. There, according to the monument, were born "on January 9 in the morning at three, two boys and five girls at one time. They having received holy baptism died a blessed death on the 20th of the same month at twelve o'clock." Despite the exactness with which hour of birth and death are reported, scientists are skeptical. They think it especially strange that all seven should have expired at the same moment.

Most ancient such report is that by Aristotle, who told of an Egyptian woman who had four sets of quintus.

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NUTRITION

Harvesting Vitamins

➤ THE TIME of harvest of vegetables has been found to have small effect on their food values.

Knowing that vegetables grown in greenhouses in winter are lower in vitamins A and C than those grown outdoors in summer, Prof. Hans Platenius

of the department of vegetable crops at Cornell University decided to see how much sunlight is a factor in producing vitamin C.

He experimented with six vegetables, all excellent sources of vitamin C, in a home garden last summer. They were

harvested late in the afternoon, at five or six o'clock, and the following morning at seven or eight o'clock. Samples were taken for a period of five or six days to observe the influence of changing weather conditions. Four days were clear, and two were cloudy.

With spinach, for example, he found the vitamin C content somewhat higher in the evening than in the morning, explainable by the higher water content of plants in the morning. On a dry-weight basis, vitamin C changes became insignificant. One cloudy day did seem to lower the vitamin C content somewhat. On the other hand, in a later experiment kale, after a period of six cloudy days, had as much vitamin C as it did after a week of bright sunshine.

Even over an entire season changes in vitamin C are small, Prof. Platenius reports. Kale leaves harvested the middle of November had only 15% less vitamin C than leaves from the same plants harvested in July.

He concludes that time of harvest has no material effect on the food value of vegetables, at least as far as vitamin C is concerned, and advises commercial growers to continue to harvest their crops at a time best suited to their marketing schedule. Nor do housewives have to stay up late nights to do the home canning.

"What does remain important is to get vegetables from the garden to the cooking pot with the least delay."

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AEERONAUTICS

Airplane Engine Cowling Cuts Down Turbulence

➤ A TURBULENCE-abating engine cowling for airplanes invented by F. E. Flader and D. R. Berlin, of Kenmore and Eggertsville, N. Y., respectively, has been granted patent 2,343,655. The angle between the engine housing and the pilot's "greenhouse" on some high-wing types interferes with lift because of the turbulence it produces at low flying speeds. To break this up, air slits are provided on the upper side of the cowling, with suitable shutters to control them. When turbulence threatens, they are opened and the issuing air jets break it up.

Rights in the patent are assigned to the Curtiss-Wright Corporation.

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